

**FIG. 1**

The diagram illustrates a system for monitoring and controlling ventilation. A human figure (4) is shown with a tracheal cannula (6) inserted into the trachea. The cannula is connected to a Ventilator System (18). The system also includes an Analysis Unit (2) and an EMG Filtering & Analysis Device (20). The Analysis Unit (2) is connected to the EMG Filtering & Analysis Device (20) and the Ventilator System (18). The EMG Filtering & Analysis Device (20) is connected to the Ventilator System (18). The Ventilator System (18) is connected to the tracheal cannula (6). The tracheal cannula (6) is connected to the trachea (10) via a tracheostomy (8A, 8B, 8C, 8D). The tracheostomy is labeled as Electrodes. A sensor (12) is positioned near the trachea (10) to detect EMG signals. A control unit (13) is connected to the sensor (12) and the Analysis Unit (2).

The diagram shows a vertical line with four square electrodes labeled 8A, 8B, 8C, and 8D from top to bottom. The word "Electrodes" is written to the left of the electrodes. Each electrode is connected to a horizontal line. The horizontal lines for 8A and 8D are connected to the inputs of two comparators, 14A and 14C. The horizontal lines for 8B and 8C are connected to the inputs of two comparators, 14B and 14D. The comparators are represented by triangles with an 'X' inside. The outputs of the comparators are labeled 14A, 14B, 14C, and 14D on the right side.

FIG. 3

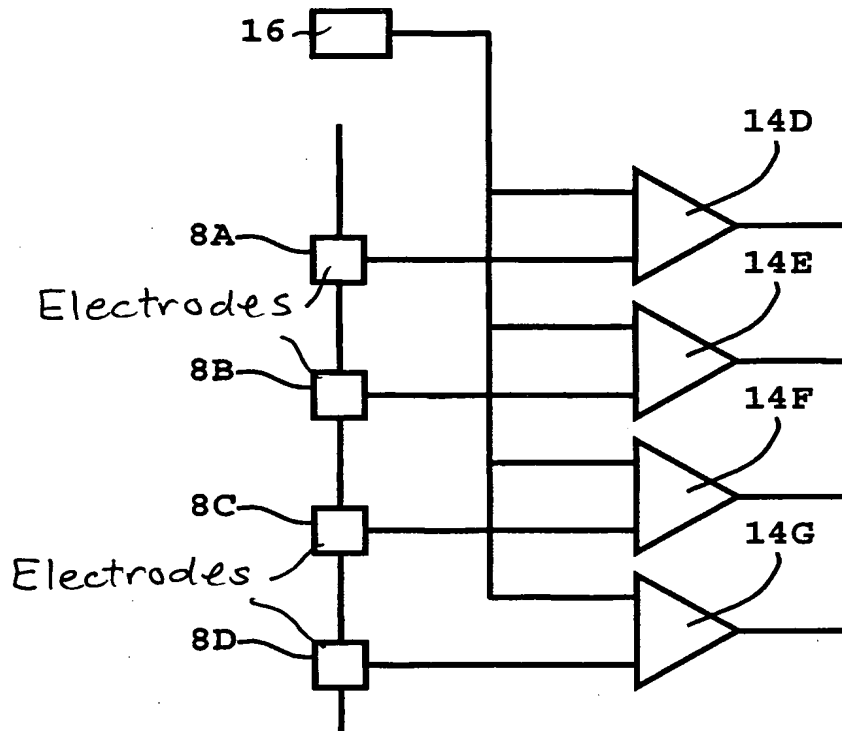


FIG. 4

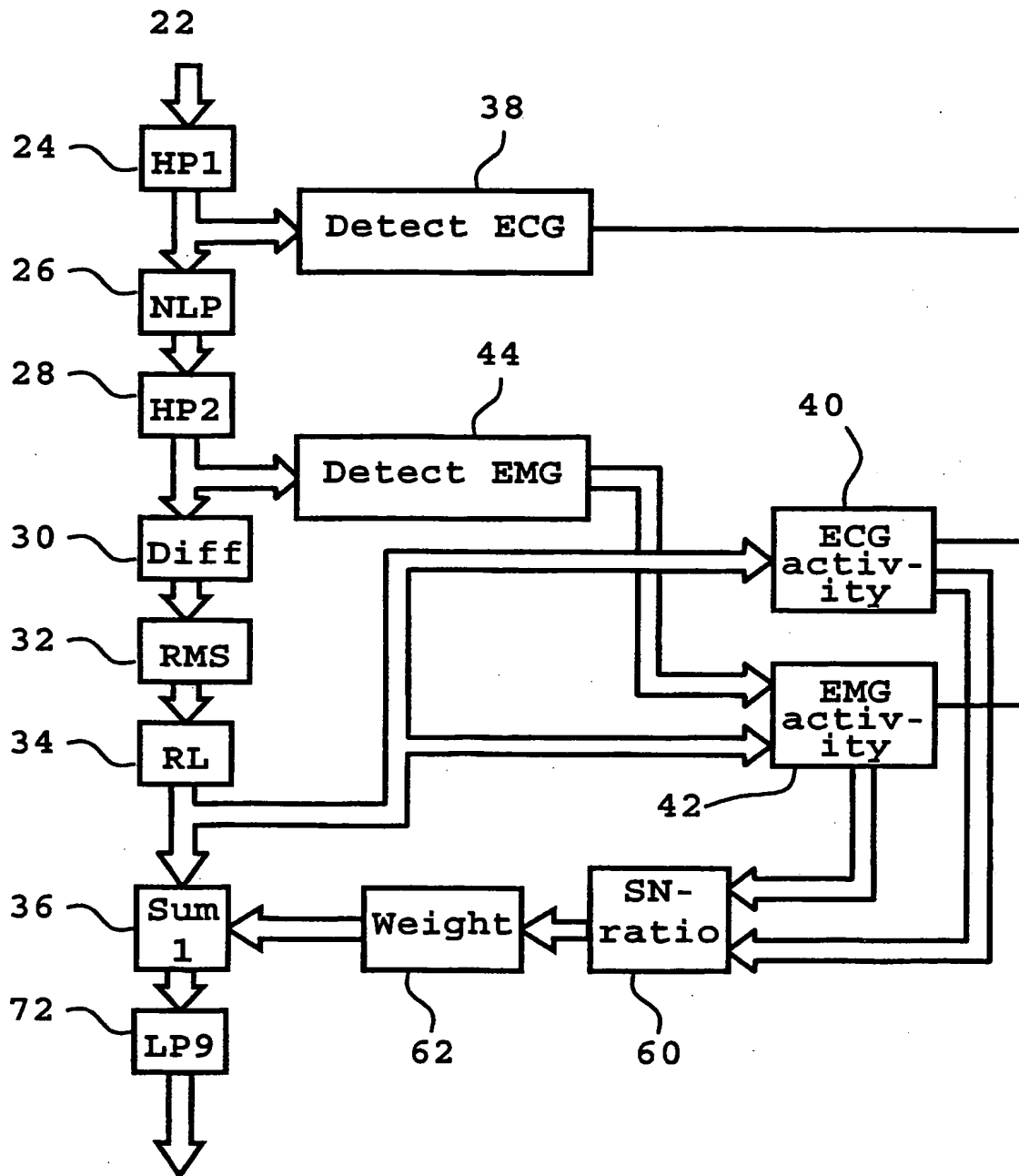


FIG. 5

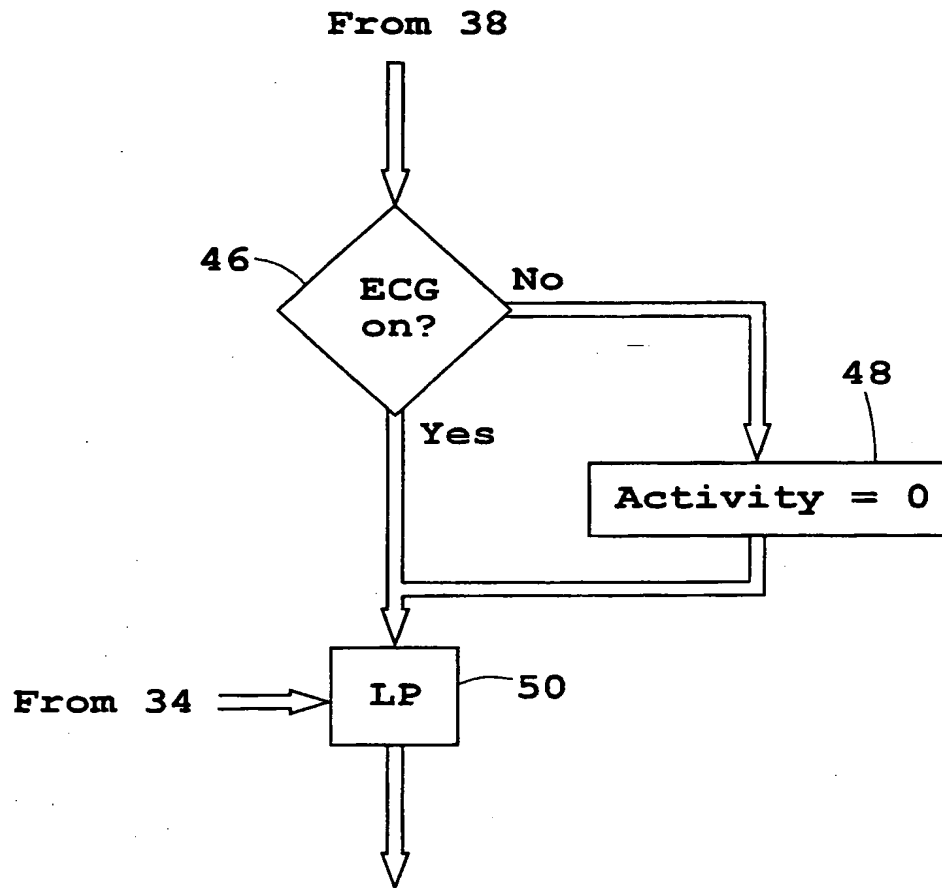
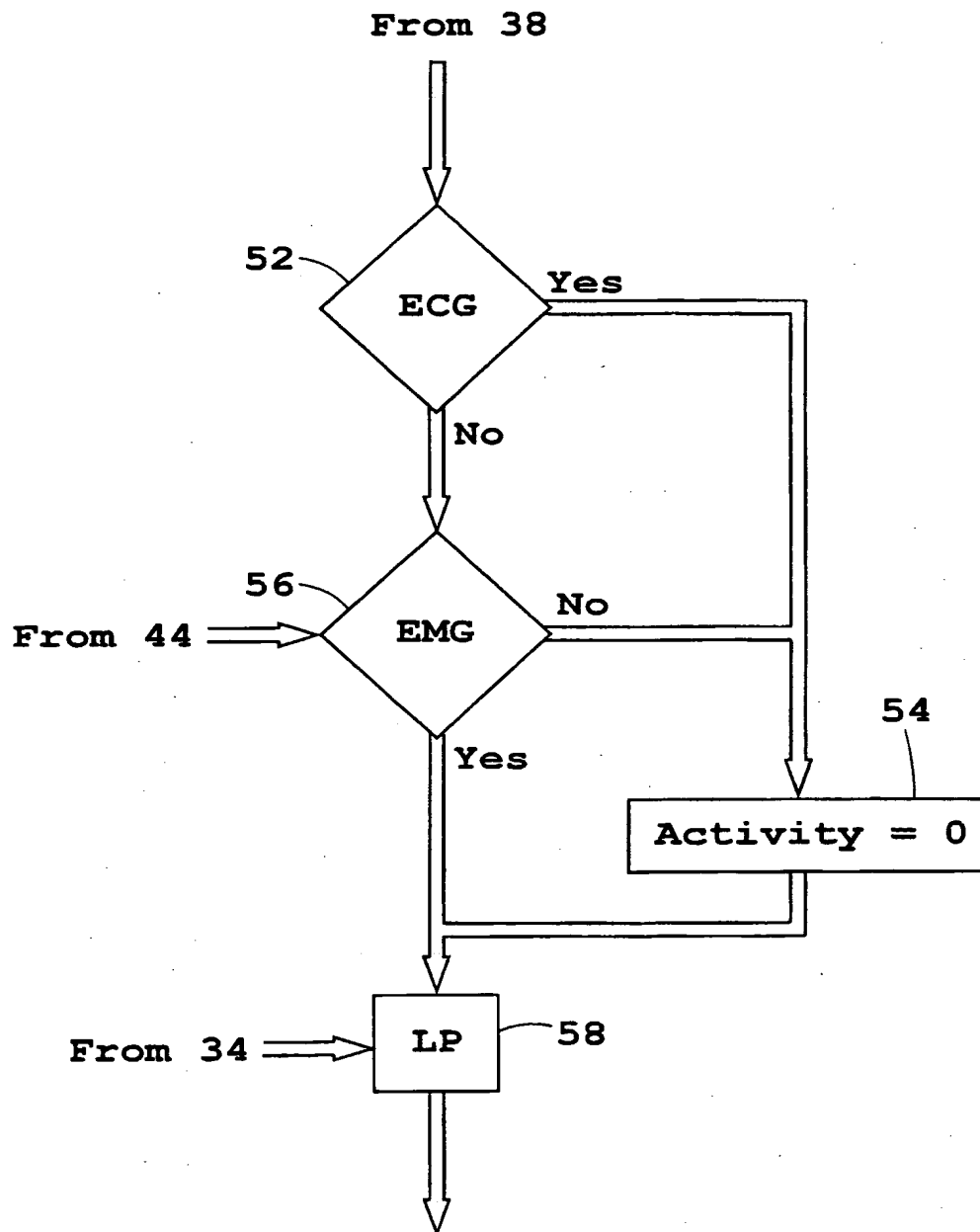


FIG. 6



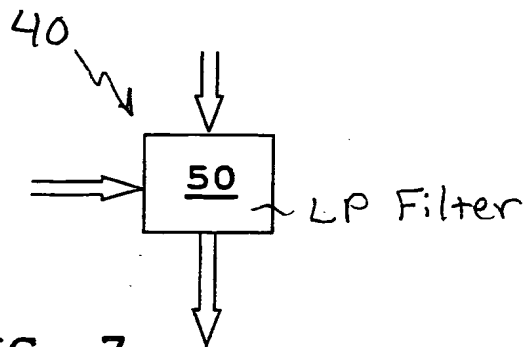


FIG. 7

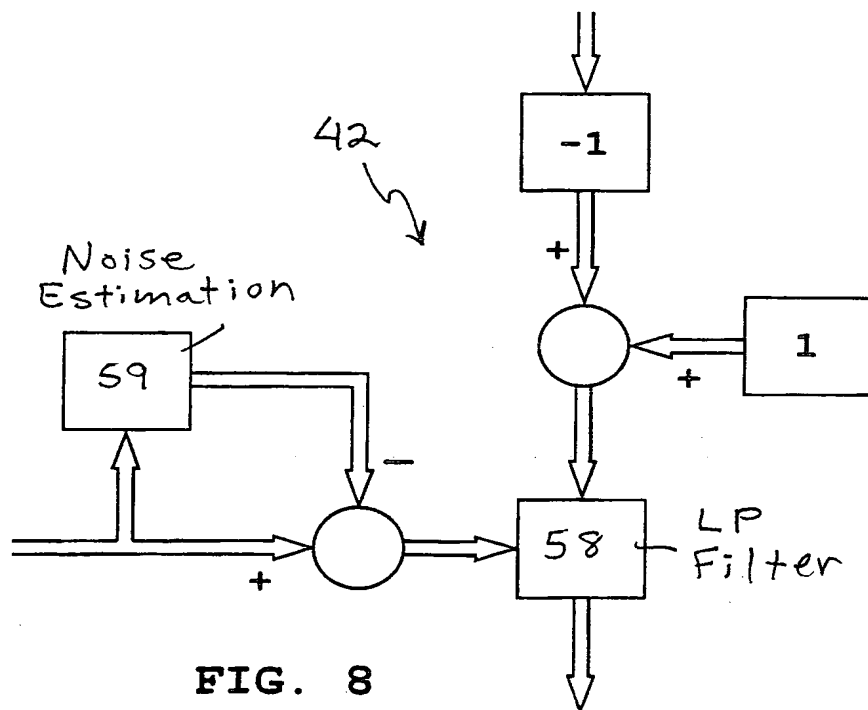


FIG. 8

FIG. 9

